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(71)Applicant : AGENCY OF IND SCIENCE &  
TECHNOL  
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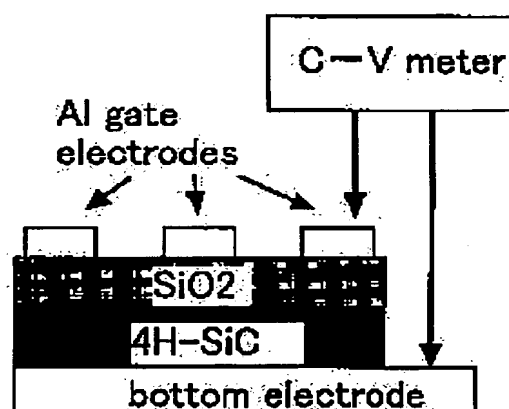
(72)Inventor : ARAI KAZUO  
YOSHIDA SADAJI  
NAGAI KIYOKO  
SEKIKAWA TOSHIHIRO  
FUKUDA KENJI

## (54) MANUFACTURE OF SEMICONDUCTOR DEVICE

### (57)Abstract:

**PROBLEM TO BE SOLVED:** To provide a MOS capacitor of interface level density by forming at least one layer of oxide film and nitride film as a gate insulating film on a semiconductor substrate comprising a silicon carbide on the top layer before annealing in the atmosphere containing hydrogen at a temperature in specified range.

**SOLUTION:** On a semiconductor substrate comprising a silicon carbide(SiC) on its top, at least one layer of gate insulating film comprising oxide film and nitride film is formed for annealing in the atmosphere containing hydrogen at 600-1600°C thereafter, so that dangling bond of carbon or silicon present at an insulating film/silicon carbide interface is terminated, thus reducing an interface level density for better interface. Al is used for a gate electrode and ohmic contact to produce a MOS capacitor, eventually. Thus, an insulating film/silicon carbide interface sufficiently resistant for actual use is provided.



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